

FY2018 Final Report on the
Key Initiatives
Recommended by NTT
Data regarding the Agency
Cybersecurity Framework

Zhenzhen Sun
Assistant Commissioner/CIO
Information Solutions and Services

John House
Information Security Officer
Information Solutions and Services

AOC – July 25, 2018



Agenda

This presentation will cover the following topics:

- 2017 Agency Cybersecurity Framework Assessment Results
- Strategy to Mature Agency Cybersecurity Framework
- FY2017-2018 Security Initiatives Implementation Roadmap
- Progress Report
- FY2019 Security Initiatives Implementation Roadmap

2017 Agency Cybersecurity Framework Assessment Results

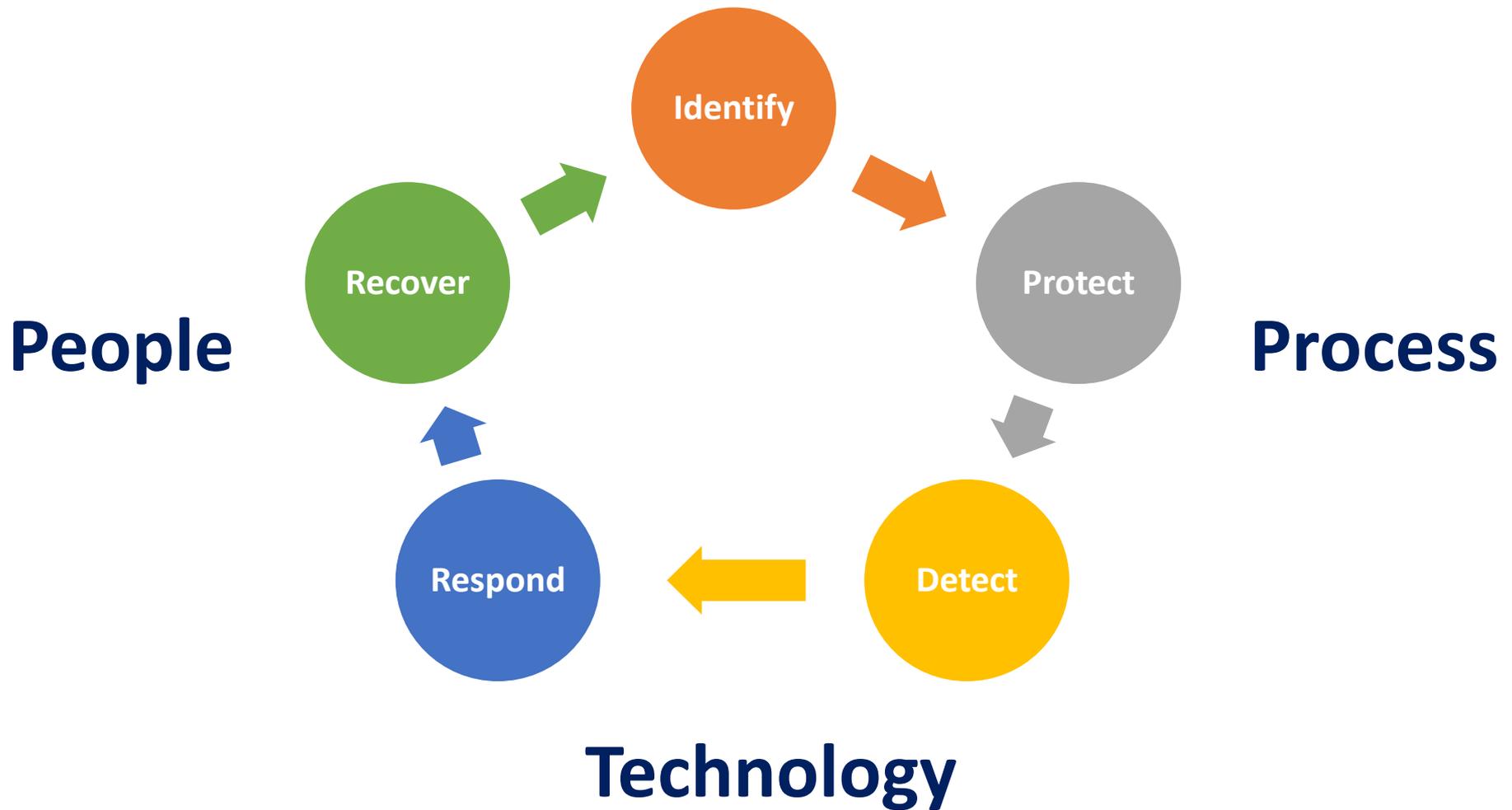
- Between April and June 2017 NTT Data, Inc., vendor contracted by the Department of Information Resources, performed an assessment of the THECB's cybersecurity infrastructure.
- NTT presented their findings and over 70 recommendations to the Board in a Special Called Board meeting on June 28th, 2017.
- Among the 40 objectives of the TX Cybersecurity Framework:
 - THECB scored **higher than** the state agency average in 34 objectives
 - 3 objectives received scores **equal to** the state agency average
 - 3 objectives received scores **lower than** the state agency average

THECB Control Objective Maturity Scores

Maturity Level	Number of Objectives
Level 3	24
Level 2	16
Total	40

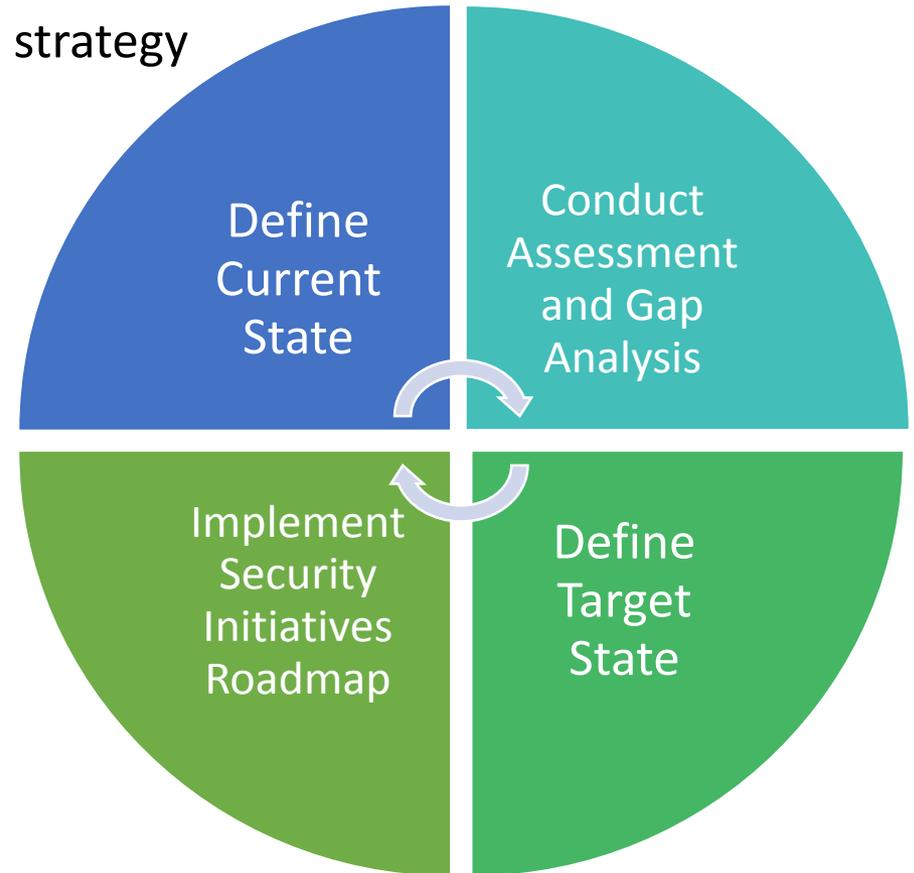


Agency Cybersecurity Framework

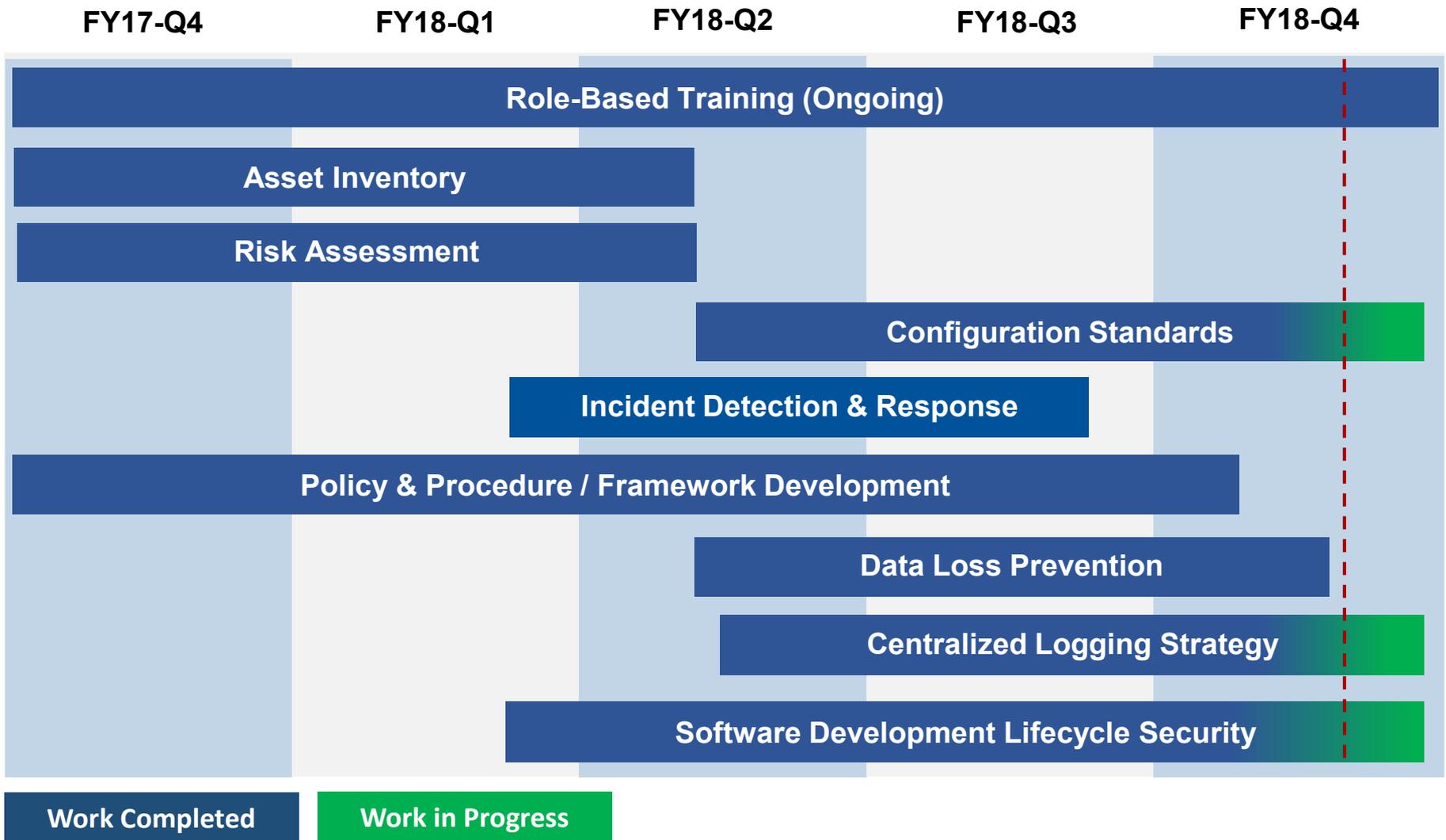


Our Strategy to Mature the Agency Cybersecurity Framework

- A relevant, actionable and sustainable strategy
- Consider business priorities, assets, processes, and people
- Document goals and objectives
- Define controls
- Evaluate and prioritize risks



FY2017-18 Security Initiatives Implementation Roadmap



Progress Report – Completed in Q3

- Configuration Hardening Standards
 - Completed System Security Plans for critical applications
 - Acquired Vulnerability Management tool through Data Center Services Managed Security Services (MSS)
- Policy & Procedure
 - Completed Enterprise Architecture Strategy Document & Training
 - Updated Section HH IT policies – to be posted pending approval
 - Data Loss Prevention procedures updated, training developed
 - Data Loss Prevention tool deployed on workstations
- Software Development Lifecycle Security
 - Security checklist and frameworks for developers published
- Role Based Training
 - Office 365 Data Loss Prevention Training
 - Updates to FERPA training and Security Awareness training library

Cybersecurity Control Area Improvement

Objective	Control Area	2017	08/2018
Identify	Critical Information Asset Inventory	2	3
Identify	Information Security Risk Management	2	3
Identify	Security Compliance and Regulatory Requirements Management	2	3
Protect	Enterprise Architecture, Roadmap & Emerging Technology	2	3
Protect	Secure System Services, Acquisition and Development	2	3
Protect	Security Awareness and Training	2	3
Protect	Privacy Awareness and Training	2	3
Protect	Secure Configuration Management	2	3
Protect	Media	2	3
Protect	System Configuration Hardening & Patch Management	2	3
Protect	Data Loss Prevention	2	3
Protect	Identification & Authentication	2	3
Protect	System Communications Protection	2	3
Detect	Security Monitoring and Event Analysis	2	3
Respond	Cyber-Security Incident Response	2	3
Respond	Privacy Incident Response	2	3

Q4 Initiatives Still in Progress

- Configuration Hardening Standards
 - Implement MSS Vulnerability Management – use reports from the tool to reduce vulnerabilities
- Software Development Lifecycle Security
 - MSS Fortinet Web Application Firewall operational on agency websites
 - MSS Application Vulnerability Scanning integrated in the software development lifecycle
- Centralized Logging Strategy
 - MSS Security Incident & Event Management operational for in-scope assets

FY2019 Security Initiatives Implementation Roadmap

FY19-Q1

FY19-Q2

FY19-Q3

FY19-Q4

Role-Based Training (Ongoing)

Software Development Lifecycle Security / Cryptography

Critical Information Asset Inventory

Policy & Procedure

Identification & Authentication

Secure Configuration Management

Access Control

Data Classification

Cloud Usage & Security

Proposed Schedule